



March 1, 2012

China Lake installs F/A-18E/F Tactical Operational Flight Trainer



IBAR's F/A-18 Trainers lead, Dan Loibl, left, and lead operator, Tom Taliaferro, right, stand with Rear Adm. Mat Winter, center, as he cuts the ribbon on the new F/A-18 Tactical Operational Flight Trainer (TOFT) at China Lake. (U.S. Navy photo)

CHINA LAKE, Calif., – NAVAIR recently strengthened its warfighter-qualification facilities with the installation of a Tactical Operational Flight Trainer (TOFT) at China Lake. The TOFT F/A-18E/F simulator, which fulfills NATOPS requirements and allows pilots to practice emergency procedures, is also used to qualify pilots nationwide. Rear Adm. Mat Winter, NAWCWD commander, officiated at the simulator's grand opening event, March 1.

China Lake's TOFT offers local VX-9 and VX-31 pilots an alternative warfighter-qualification training venue as well as the capability to rehearse critical military missions prior to participating in live-fire and captive-carry test and evaluation (T&E) events. This is the only TOFT in the U.S. Navy that is government-operated and maintained and the only TOFT located at an RDAT&E facility. According to Loibl, having this TOFT at China Lake allows NAWCWD squadrons to complete required training locally, saving them time, funding, and airframe hours. It also allows PMA-205 to conduct software upgrade tests locally which can result in faster turnaround time for end users.



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"This TOFT is a rich addition to the arsenal of capabilities for our warfighters and the direct result of Command, competency, and program collaboration and leadership," Winter said.

The TOFT, located in Laboratory 1 of the Michelson Laboratory annex (Building 6), installation required 1,800 square feet of space, two additional 225A circuits and 30 tons of extra air-conditioning capacity to power and cool the device. By having the simulator located at China Lake, the Navy will save millions of dollars that would have been spent in fuel and transportation costs by shuttling pilots back-and-forth between China Lake and NAS Lemoore, which was once the closest available TOFT location.

China Lake's TOFT is identical to those located at NAS Lemoore and Oceana except for its lack of an aft SimuSphere. Each TOFT features individual front and aft cockpits, both equipped with its own SimuSphere — a nine-panel visual-display dome to complement an out-the-windows (OTW) environment.

To decrease the simulator's size and cost, the IBAR replaced the aft OTW display dome with a five-foot flat-panel screen. Each SimuSphere also includes 11 projectors: nine projectors display OTW images, one projector provides the pilot's heads-up display, and the final projector displays images for the Improved Fresnel Lens Optical Landing System.

Each TOFT also features a simulated Joint Helmet Mounted Cueing System and night-vision goggles. The system is compatible with either APG-73 or -79 radar. Future upgrades may include the capability to run the system on emerging F/A-18G aircraft.

The TOFT at China Lake is the only device of its kind owned and operated solely by the U.S. government. Other models — including those located at NAS Lemoore and NAS Oceana — are government-owned and contractor-operated. The TOFT is software-based and costs less than its hardware counterparts. The ultimate goal is to shorten the timeline between software development and F/A-18E/F fleet installation.

China Lake's TOFT will also help PMA-205 improve its Live-Virtual-Constructive (LVC) capabilities by utilizing a facility known for its realistic, multifaceted test and evaluation environment. The IBAR's expertise in weapon-system simulation, networking, and C2 integration will assist PMA-205 and NAVAIR's Training System Division work the TOFT into LVC events without altering its programming code or functionality. Installed in November 2011, TOFT software loading and testing procedures were completed early in 2012 with takeoff scheduled for March 1 this year.

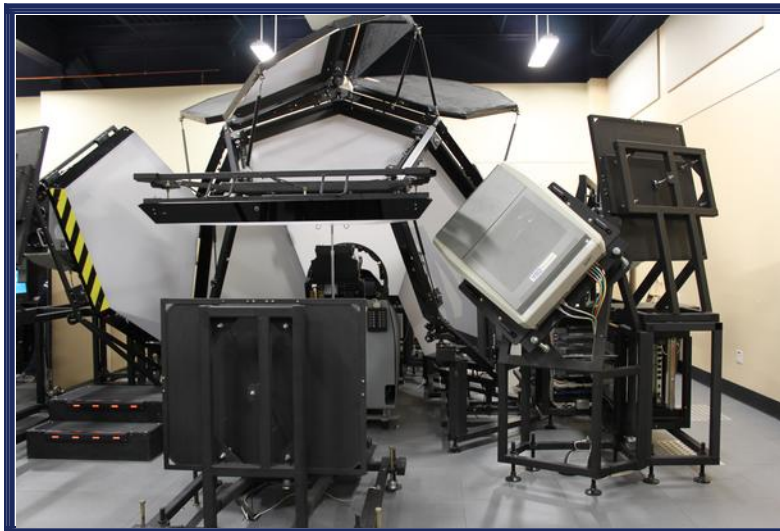


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NAWCWD employees Thomas Taliaferro, left, and Daniel Loibl are operators in charge of the F/A-18 TOFT simulator. Bruce Lowry, right, is the head of the Weapons and Simulations Test branch at China Lake. (U.S. Navy photo)



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Taliaferro and Winter discuss the benefits of having the TOFT simulator located at China Lake, which allows NAWCWD squadrons to complete required training locally, saving them time, funding, and airframe hours. It also allows PMA-205 to conduct software upgrade tests locally which can result in faster turnaround time for end users. (U.S. Navy photo)